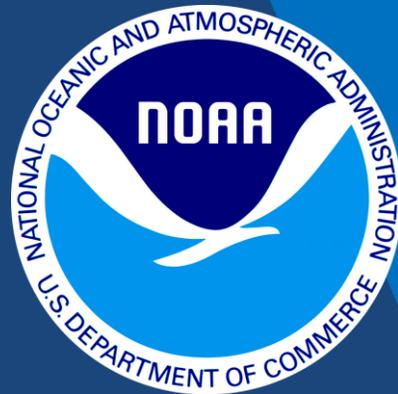


NOAA Climate Science and Services Monthly Climate Update



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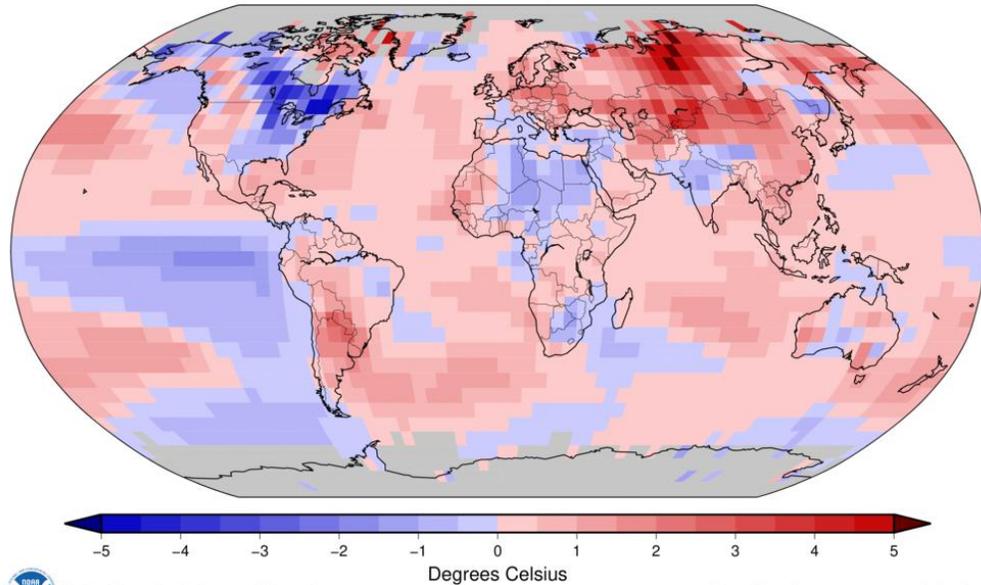
January 2022



Global Temperature

The global temperature record dates back to 1880 (143 years)

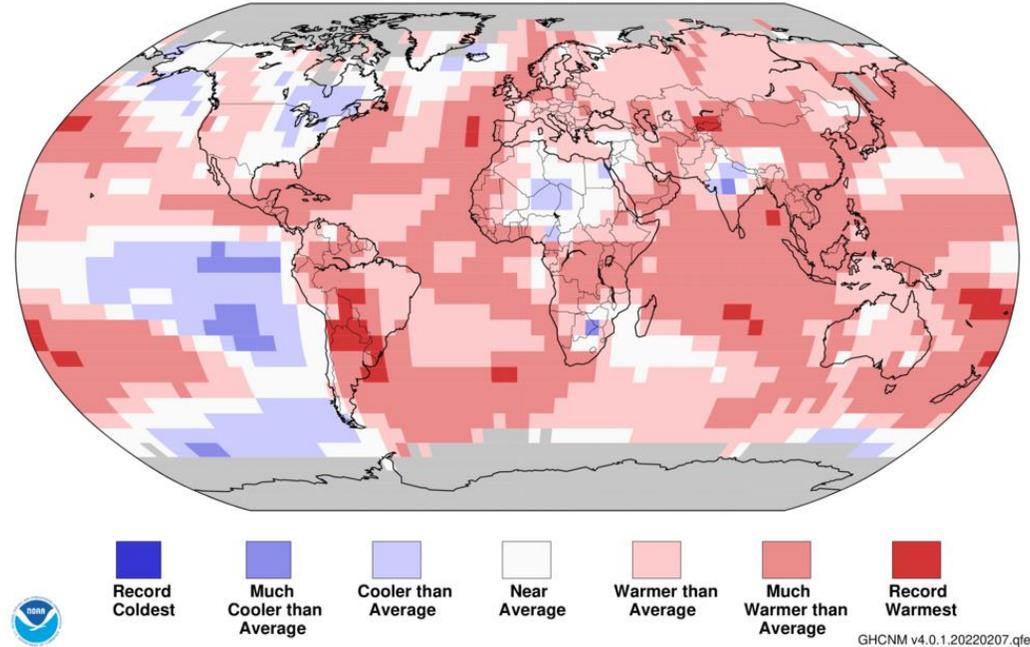
Land & Ocean Temperature Departure from Average Jan 2022
(with respect to a 1991–2020 base period)
Data Source: NOAAGlobalTemp v5.0.0–20220208



National Centers for Environmental Information
GHCNM v4.0.1.20220207.qfe

Please Note: Gray areas represent missing data
Map Projection: Robinson

Land & Ocean Temperature Percentiles Jan 2022
NOAA's National Centers for Environmental Information
Data Source: NOAAGlobalTemp v5.0.0–20220208



Record Coldest Much Cooler than Average Cooler than Average Near Average Warmer than Average Much Warmer than Average Record Warmest

GHCNM v4.0.1.20220207.qfe

January 2022

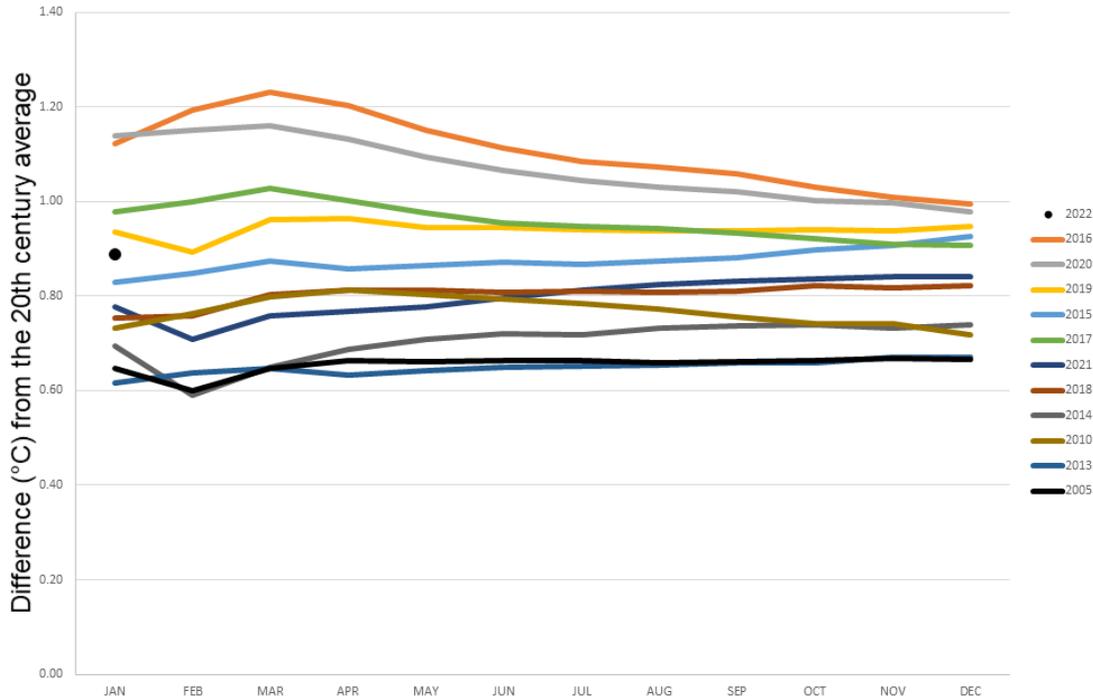
- **Global Land & Ocean:** +0.89°C / +1.60°F; the 6th warmest Jan on record.
- **Global Land:** +1.49°C / +2.68°F; 6th warmest Jan on record.
- **Global Ocean:** +0.67°C / +1.21°F; 5th warmest Jan on record.



Global Temperature

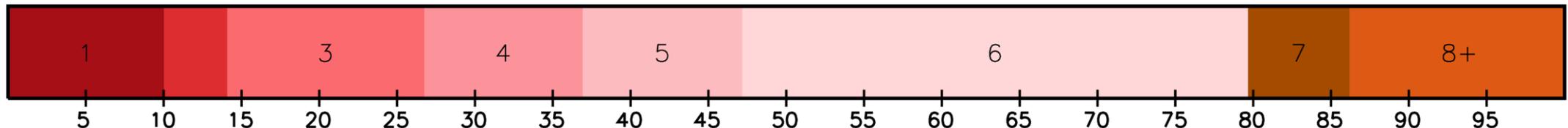
The global temperature record dates back to 1880 (143 years)

Year-to-Date Global Temperatures for 2022 and the ten warmest years on record



2022 currently ...

- 10.0% chance of warmest year
- Virtually certain that 2022 will be a top 10 year



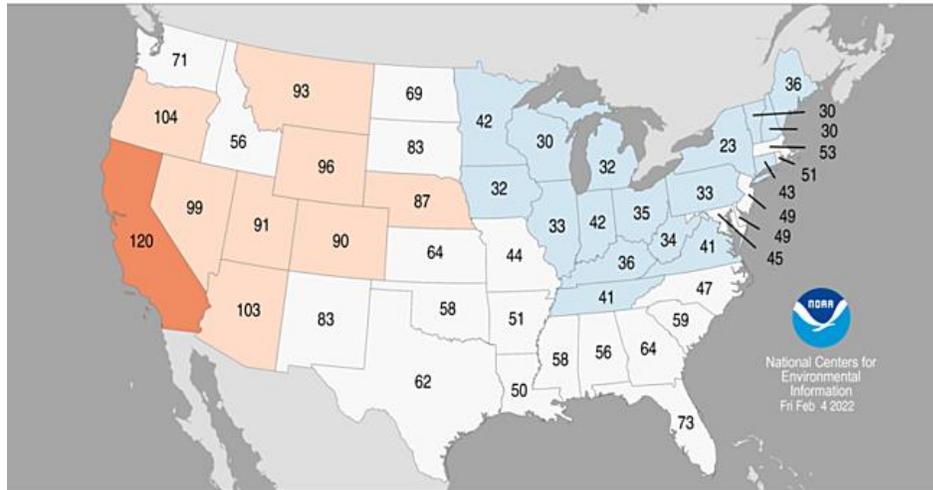


Contiguous U.S. January 2022

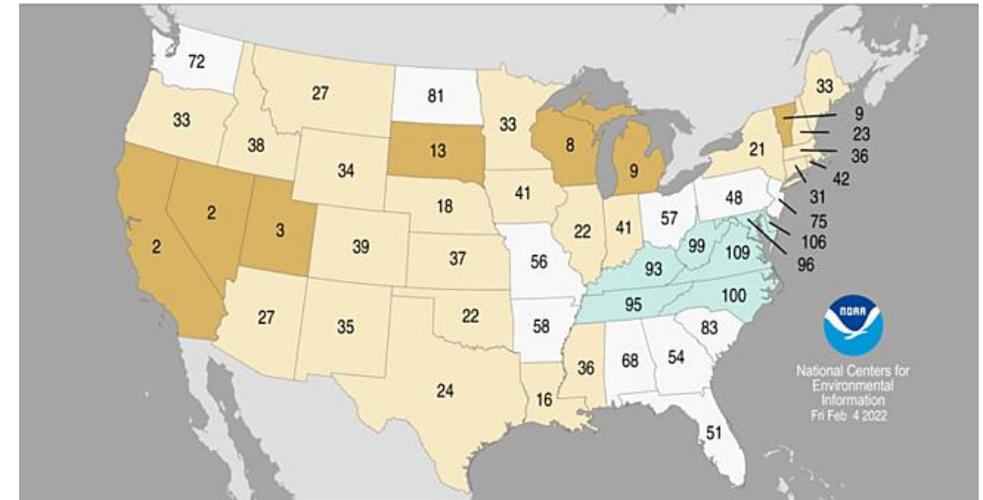
Temperature: 31.0°F, +0.9°F, “near average”

Precipitation: 1.60”, -0.71”, tied with 2009 as the 14th driest Jan on record

Temperature Percentiles January 2022
Period: 1895–2022 (128 years)



Precipitation Percentiles January 2022
Period: 1895–2022 (128 years)



- Above-average temperatures across much of the West and parts of the northern Plains. California had 9th warmest Jan.
- Below-average temperatures observed from Midwest and Tennessee Valley to the Northeast.

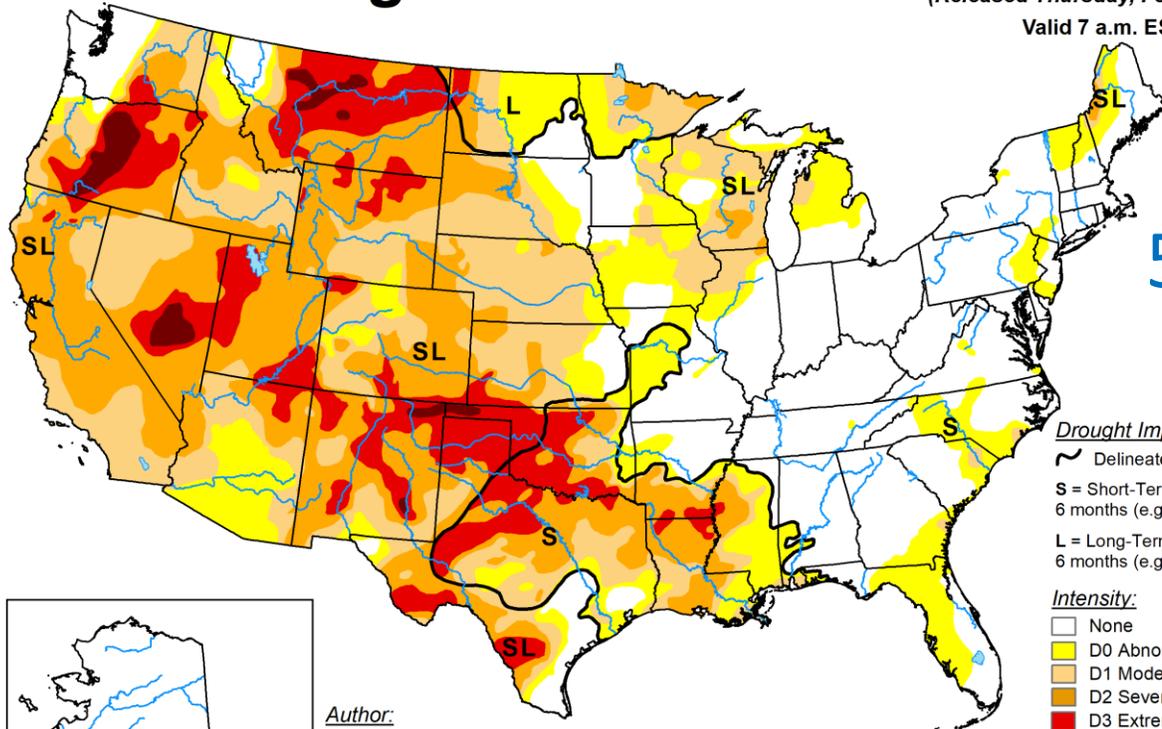
- Drier-than-average conditions observed across much of West, High Plains, Deep South, Great Lakes and Northeast.
- NV and CA 2nd driest Jan, UT had 3rd driest Jan
- TN, KY, MD, DE, WV, VA, and NC had above-average statewide precipitation.



Current U.S. Drought

U.S. Drought Monitor

February 15, 2022
(Released Thursday, Feb. 17, 2022)
Valid 7 a.m. EST



57% of Contiguous U.S. in Drought
(↑ 2 percentage points since mid-January)

Drought Impact Types:

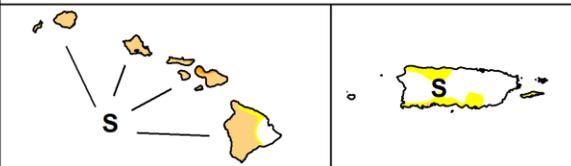
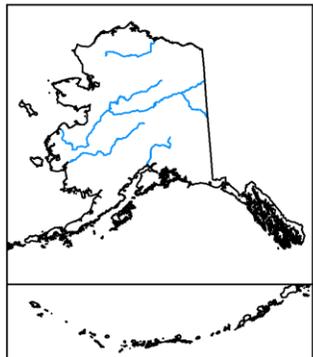
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:
Brad Pugh
CPC/NOAA

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



droughtmonitor.unl.edu

January 28–29 Blizzard

- Storm rapidly intensified off the U.S. East Coast
- Coastal areas experienced heavy snow and strong winds

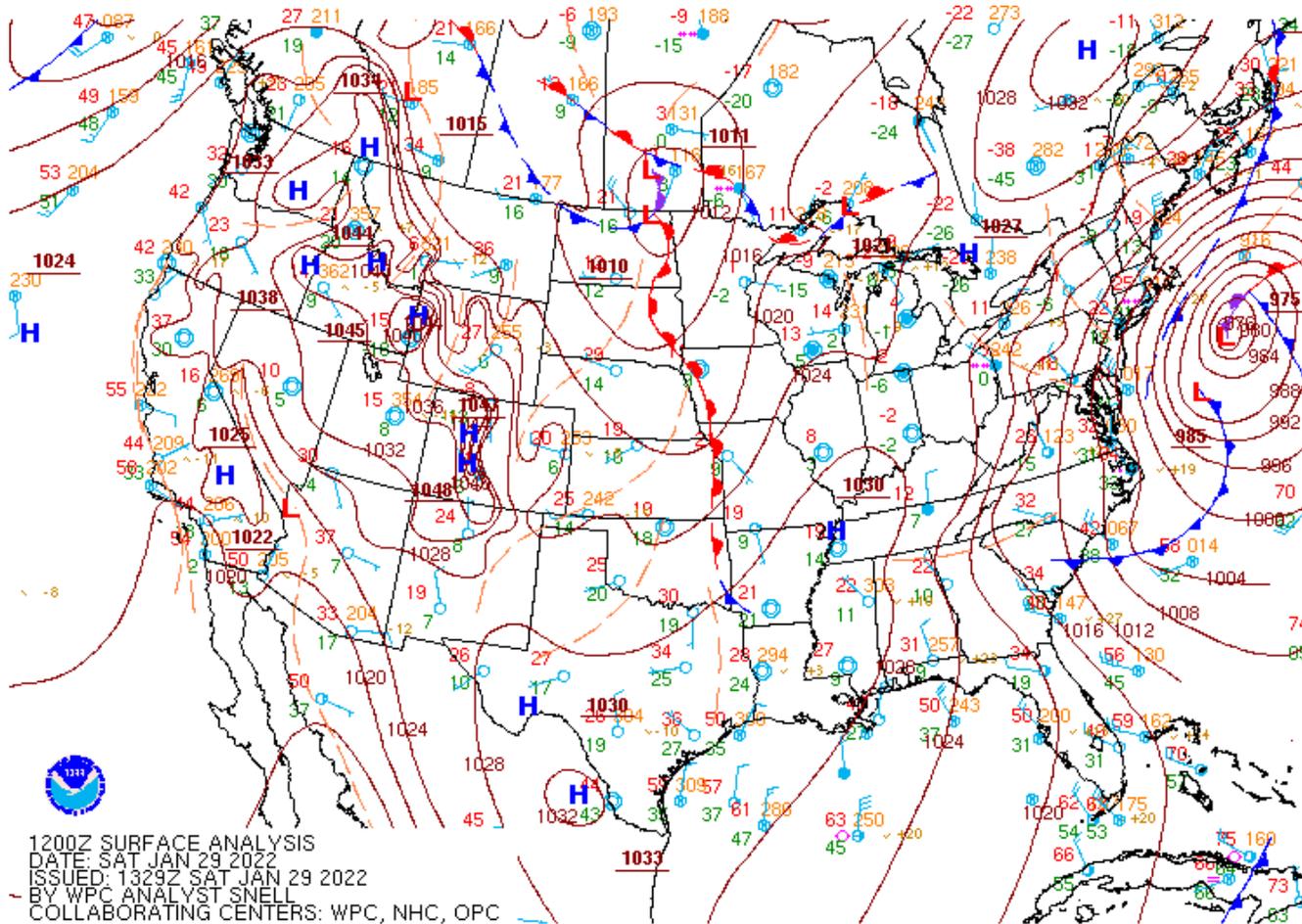
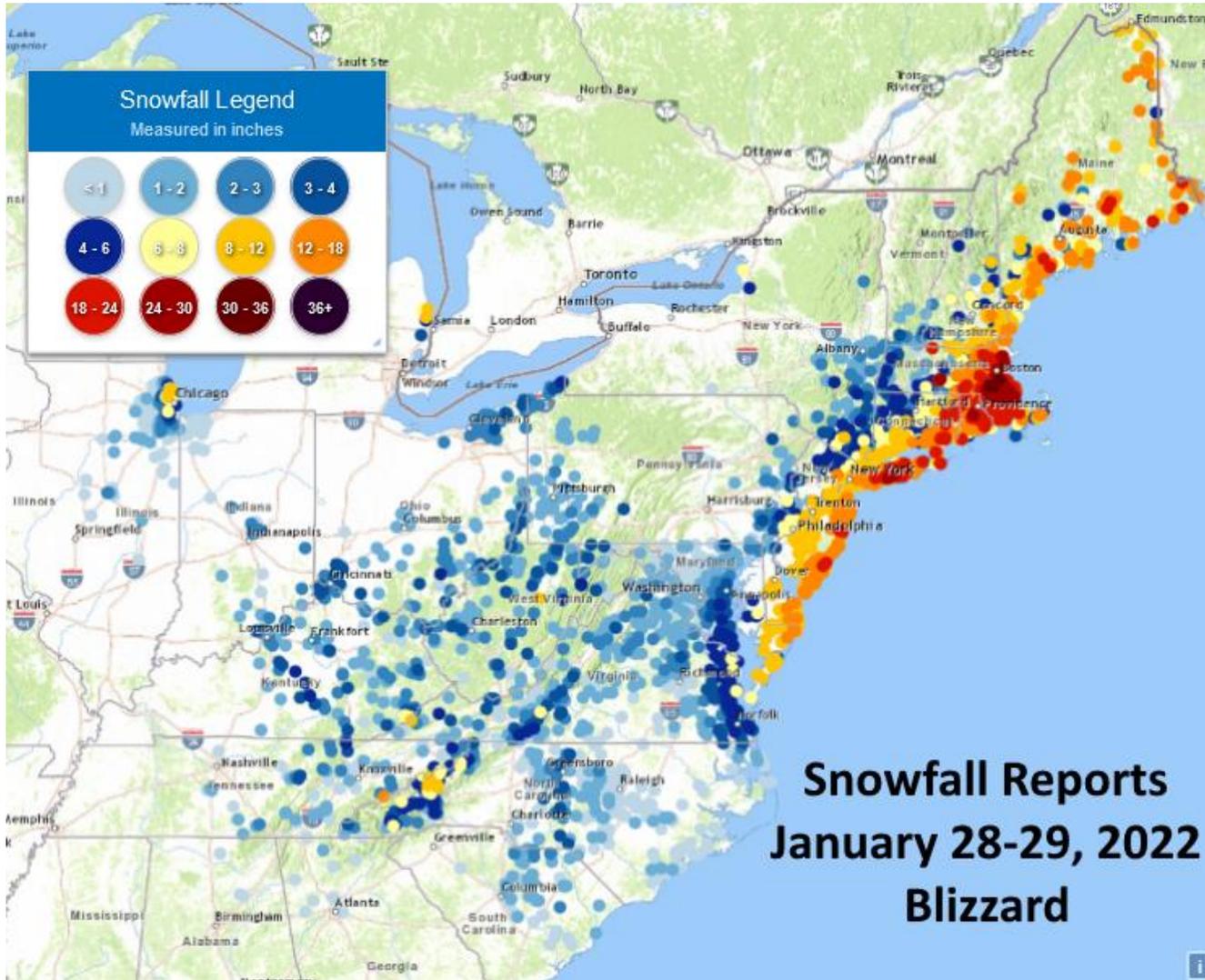


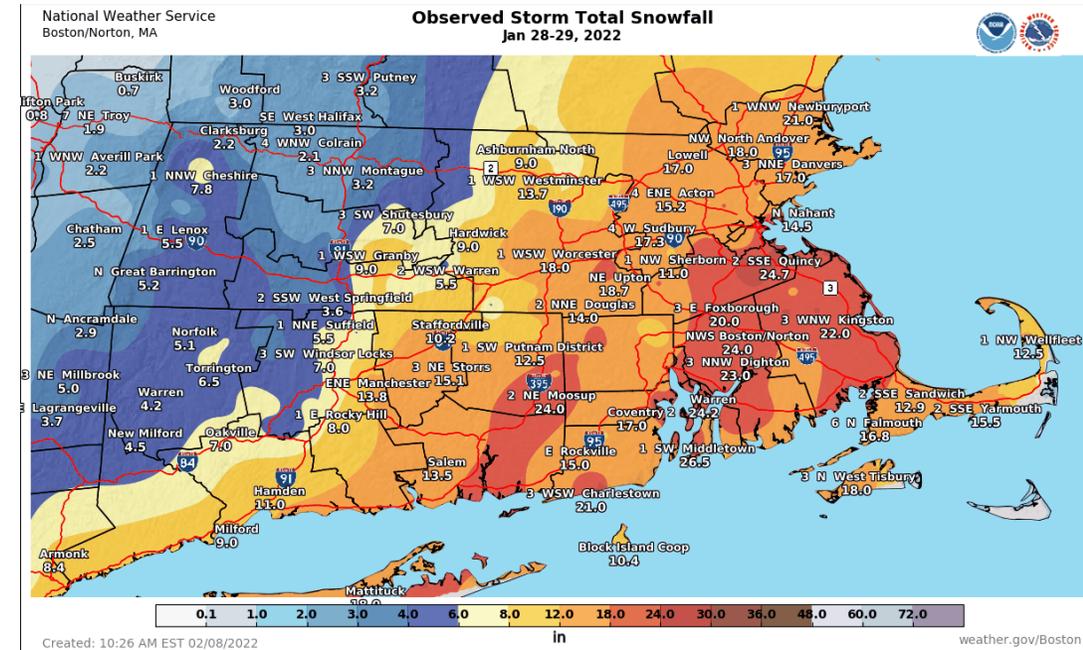
Photo courtesy of National Weather Service – Boston/Norton, Massachusetts



January 28–29 Blizzard



- Storm snowfall totals exceeded 12 inches in coastal areas from Maryland to Maine
- Parts of eastern Massachusetts, Rhode Island, and New York's Long Island saw 24 to 30 inches of snow



Map courtesy of National Weather Service – Eastern Region Headquarters



January 28–29 Blizzard

Station	Jan. 29 Snowfall	Jan. Rank	All-time Rank
Boston, MA	23.6	1	1
Islip, NY	23.2	2	2
Providence, RI	18.8	1	1
Worcester, MA	14.7	6	
Atlantic City, NJ	14.0	2	6
Bridgeport, CT	9.6	5	
Kennedy Airport, NY	9.3	6	
LaGuardia Airport, NY	8.1	9	

- Boston, Massachusetts, and Providence, Rhode Island, experienced their all-time snowiest day on record (1891 and 1904, respectively) on January 29
- January 29 ranked among the 10 snowiest January days on record at several other sites

Location	Jan. 2022 Snowfall (in.)	Normal (in.)	Departure (in.)	Jan. Rank	All-time Rank
Atlantic City, NJ	33.2	5.7	27.5	1	3
Buffalo, NY	52.1	26.7	25.4	7	13
Boston, MA	36.2	14.3	21.9	4	8
Islip, NY	31.8	10.3	21.5	2	3
Providence, RI	27.1	10.3	16.8	5	9
Bridgeport, CT	20.8	8.5	12.3	5	15
LaGuardia Airport, NY	20.4	8.6	11.8	4	15
Kennedy Airport, NY	17.8	7.5	10.3	5	18

- Atlantic City, New Jersey, has its snowiest January on record (since 1946)
- This January was among the 10 snowiest Januaries and 20 all-time snowiest months on record for several sites



January 28–29 Blizzard

THE FOLLOWING STATIONS RECORDED BLIZZARD CONDITIONS...

IN RHODE ISLAND...

PROVIDENCE (KPVJ)...5 HOURS 18 MINUTES, FROM 9 21 AM TO 1 58 PM AND FROM 2 10 PM TO 2 51 PM.

WESTERLY (KWST)...6 HOURS 16 MINUTES. CRITERIA WERE MET FROM 9 11 AM TO 11 46 AM, FROM 11 53 AM TO 3 01 PM, AND FROM 4 20 TO 4 53 PM.

NEWPORT (KUUU)...9 HOURS 28 MINUTES CONTINUOUSLY, FROM 7 25 AM TO 4 53 PM.

BLOCK ISLAND (KBID)...6 HOURS 37 MINUTES CONTINUOUSLY, FROM 7 05 AM TO 1 42 PM.

IN MASSACHUSETTS...

BOSTON (KBOS)...7 HOURS 39 MINUTES CONTINUOUSLY, FROM 8 15 AM TO 3 54 PM.

WORCESTER (KORH)...8 HOURS 27 MINUTES. IT WAS CONTINUOUS FOR 8 HOURS 16 MINUTES FROM 7 49 AM TO 4 05 PM. CONDITIONS ALSO WERE MET FROM 4 32 PM TO 4 43 PM.

BEVERLY (KBVY)...6 HOURS 9 MINUTES. CONDITIONS WERE MET FROM 8 53 TO 11 53 AM, 12 25 PM TO 2 01 PM, 2 53 PM TO 3 53 PM, AND FROM 4 53 PM TO 5 26 PM.

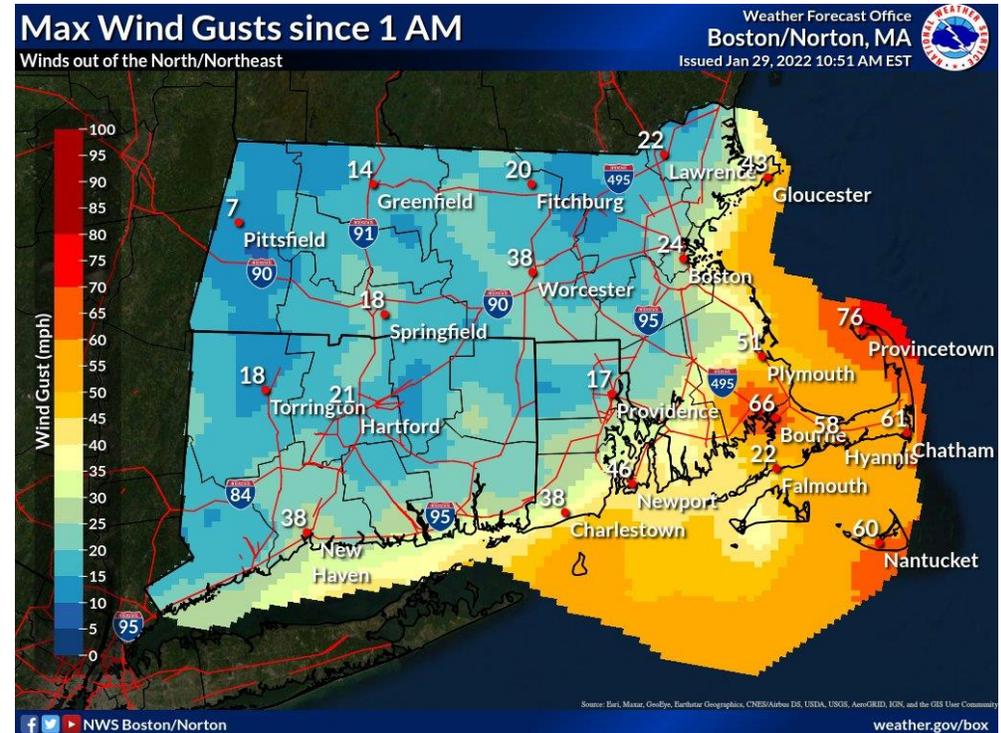
LAWRENCE (KLWM)...5 HOURS 14 MINUTES. BLIZZARD CONDITIONS OCCURRED FROM 12 54 PM TO 2 45 PM AND FROM 3 31 PM TO 6 54 PM.

HYANNIS (KHYA)...AT LEAST 6 HOURS 33 MINUTES. BLIZZARD CONDITIONS WERE CONTINUOUS FROM 7 04 AM TO 12 32 PM, BUT THEN REPORTING WAS INTERRUPTED UNTIL LATER IN THE AFTERNOON. BLIZZARD CONDITIONS RESUMED FROM 5 05 PM TO 5 39 PM AND FROM 5 48 PM TO 6 19 PM.

MARSHFIELD (KGGH)...12 HOURS 0 MINUTES. BLIZZARD CONDITIONS WERE CONTINUOUS FOR 10 HOURS 40 MINUTES FROM 4 35 AM TO 3 15 PM. THEY WERE AGAIN MET FROM 3 35 PM TO 3 55 PM AND FROM 4 15 PM TO 5 15 PM.

MARTHA'S VINEYARD (KMVY)...9 HOURS 17 MINUTES CONTINUOUSLY, FROM 7 43 AM TO 5 00 PM.

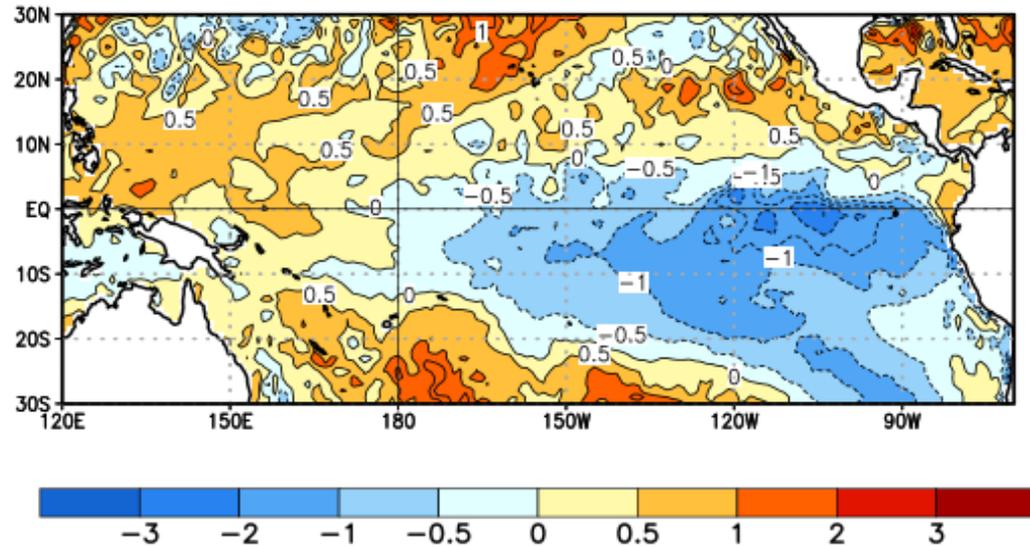
- Wind gusts ranged from 25 to 50 mph in many coastal areas, with localized gusts over 65 mph in coastal Maine, eastern Massachusetts, southern Rhode Island, and New York's Long Island
- Blizzard conditions were experienced from Maryland to Maine including Atlantic City, New Jersey; Providence, Rhode Island; Boston, Massachusetts; and Portland, Maine



Courtesy of National Weather Service – Boston/Norton, Massachusetts

Sea Surface Temperatures and ENSO

Average SST Anomalies
16 JAN 2022 – 12 FEB 2022

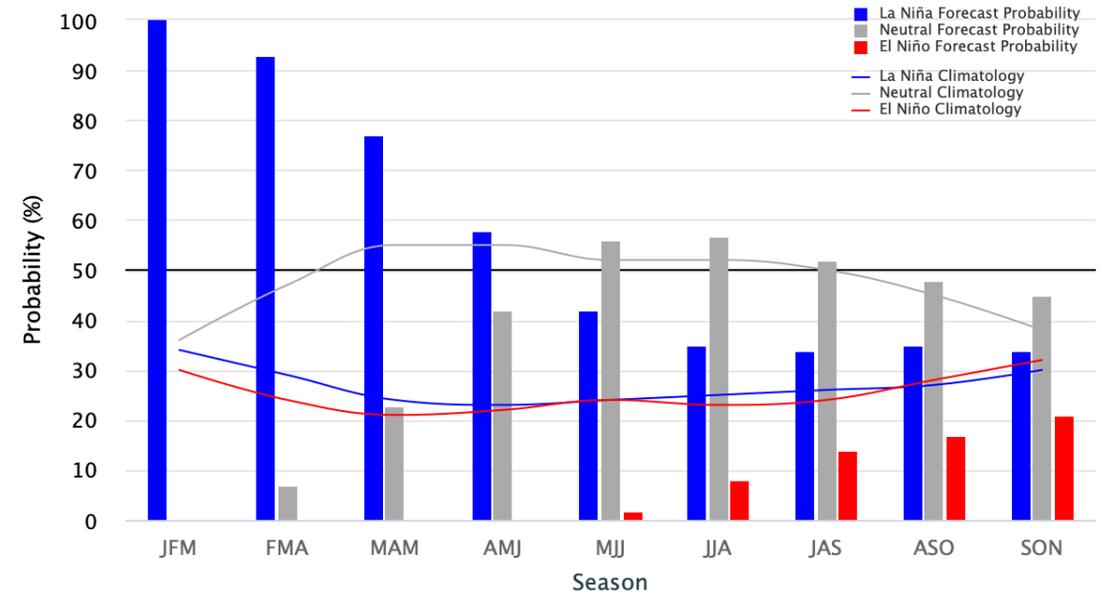


- Sea surface temperatures

- Below normal sea surface temperatures continue across the eastern Pacific Ocean near the equator
- The oceanic and atmospheric observations currently reflect La Nina conditions
- Easterly trade winds are slightly stronger than normal and precipitation over the central Pacific is less than normal

Early-February 2022 CPC/IRI Official Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C



- ENSO forecast

- La Nina is likely to persist through the next three months (77 percent chance)
- ENSO neutral conditions are more likely later in spring and summer (greater than 50 percent chance)



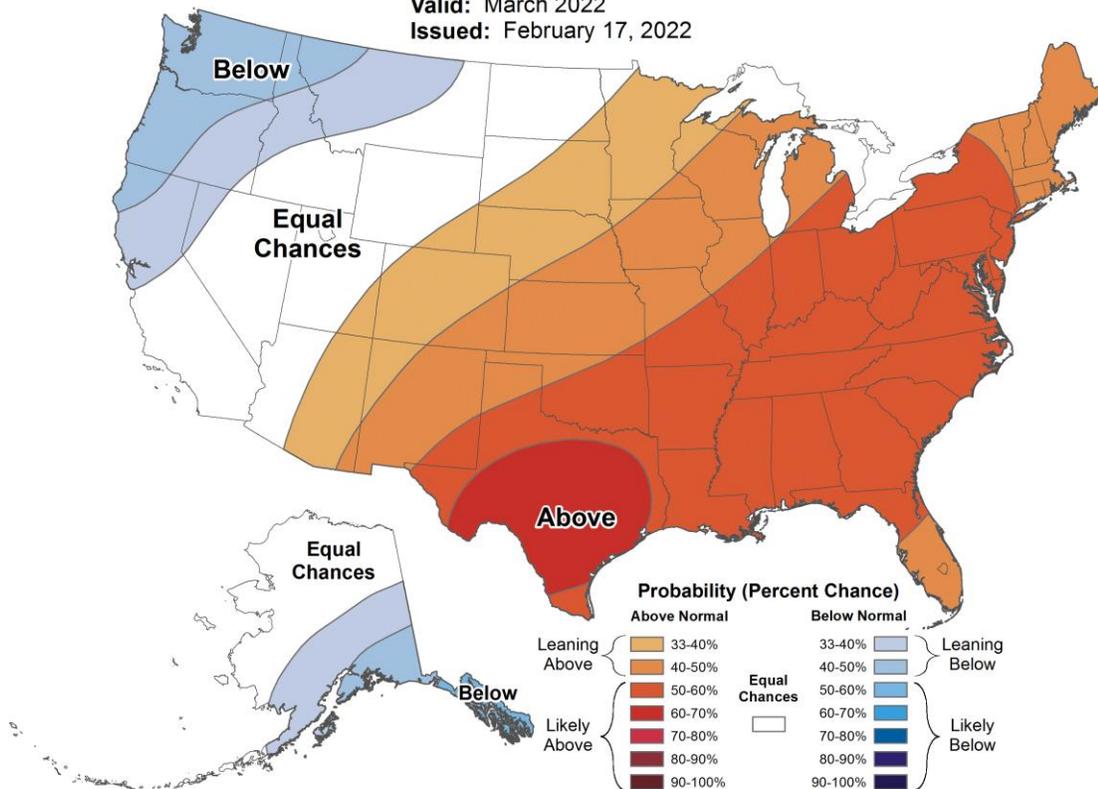
Monthly Forecast (March)

March Average Temperature Probability

March Total Precipitation Probability

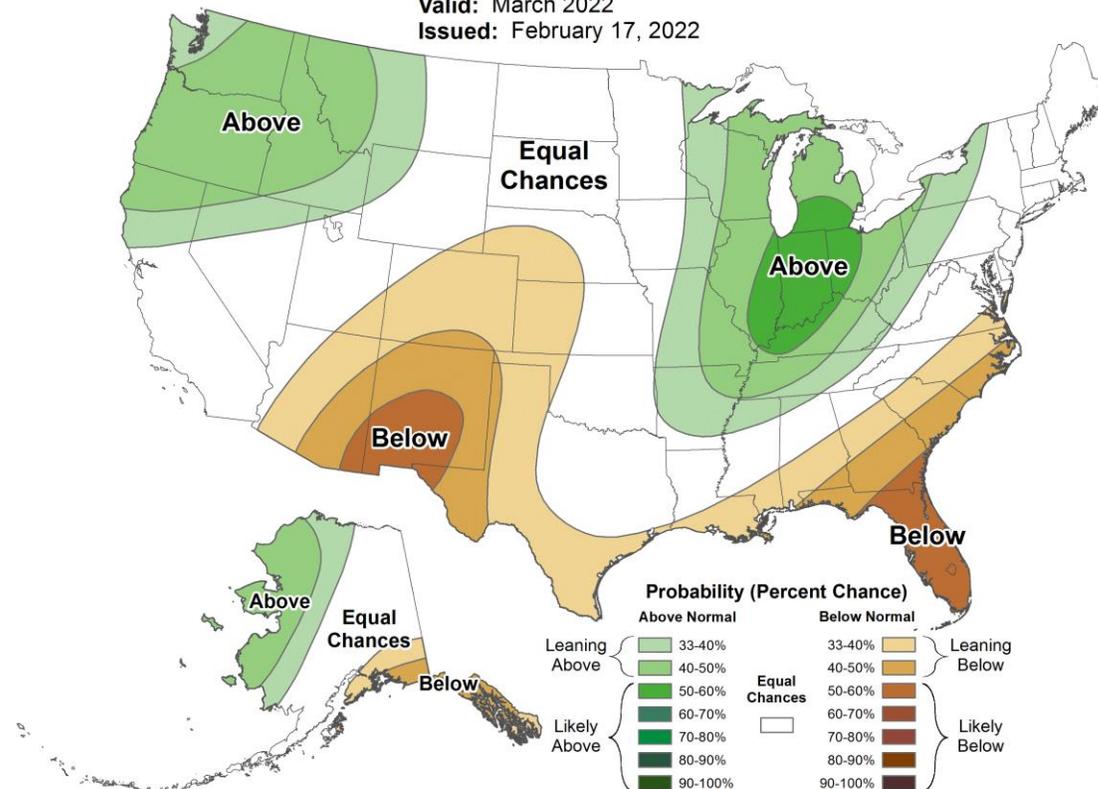
Monthly Temperature Outlook

Valid: March 2022
Issued: February 17, 2022



Monthly Precipitation Outlook

Valid: March 2022
Issued: February 17, 2022





Three-month Forecast (Mar, Apr, May)

Mar–Apr–May Average Temperature Probability

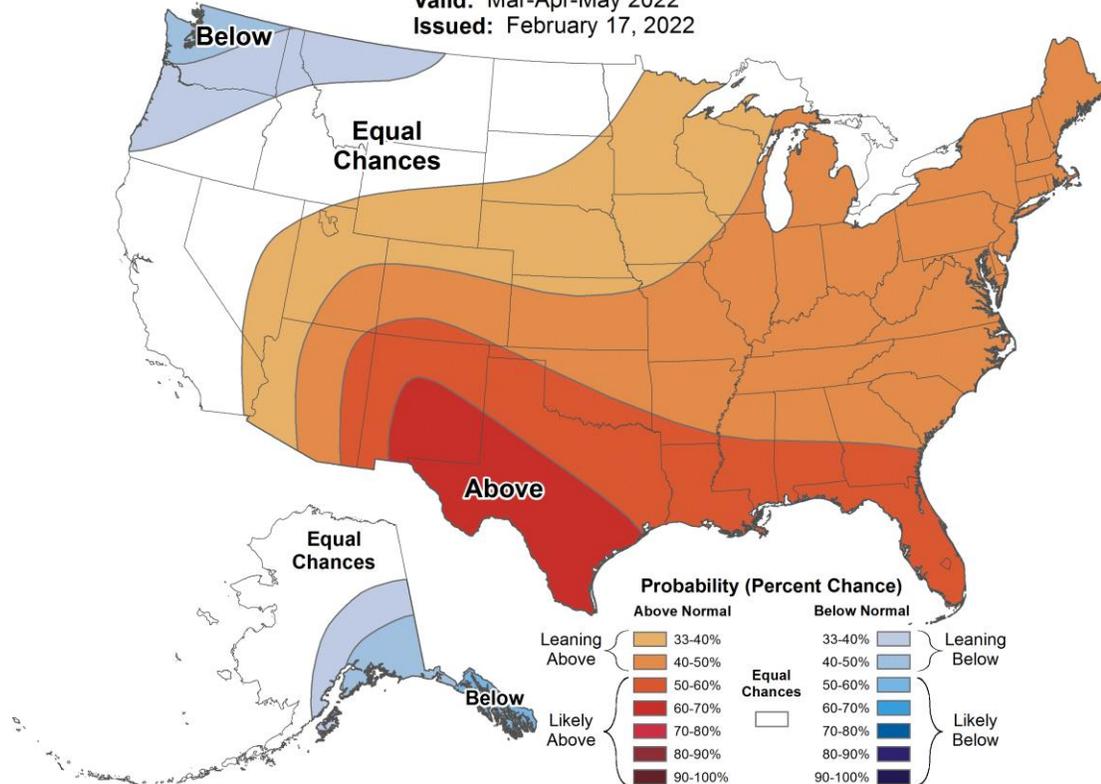
Mar–Apr–May Total Precipitation Probability



Seasonal Temperature Outlook



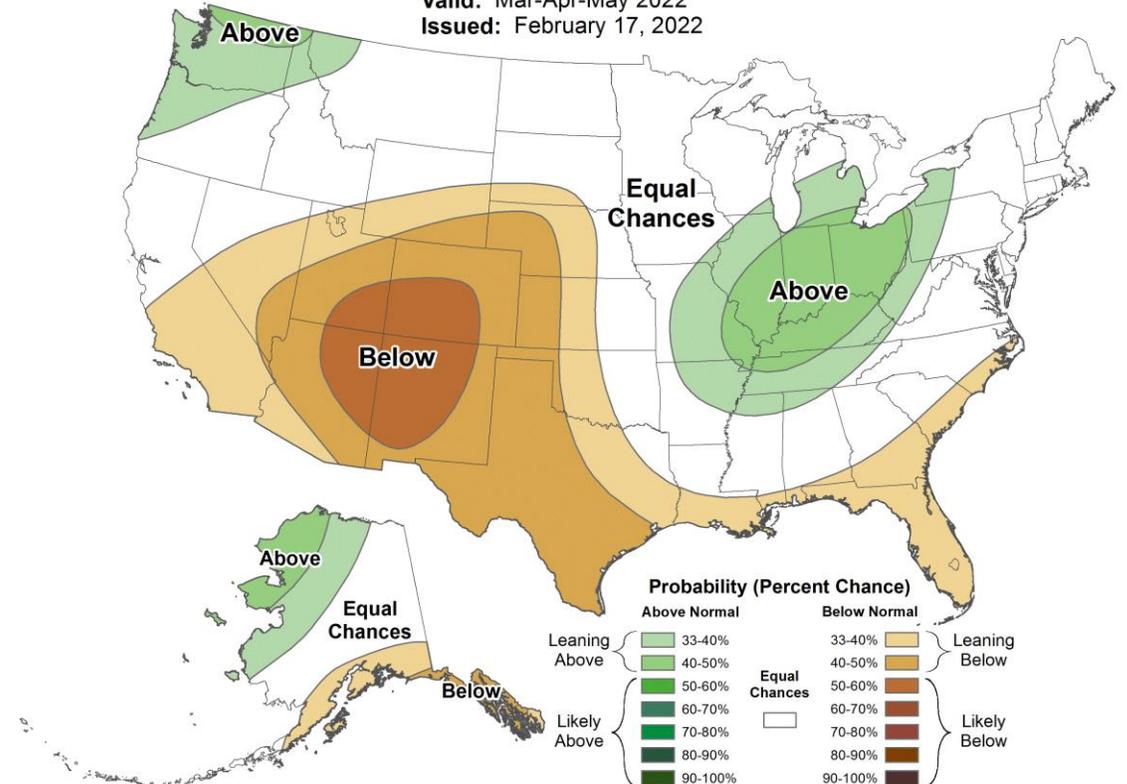
Valid: Mar-Apr-May 2022
Issued: February 17, 2022



Seasonal Precipitation Outlook



Valid: Mar-Apr-May 2022
Issued: February 17, 2022

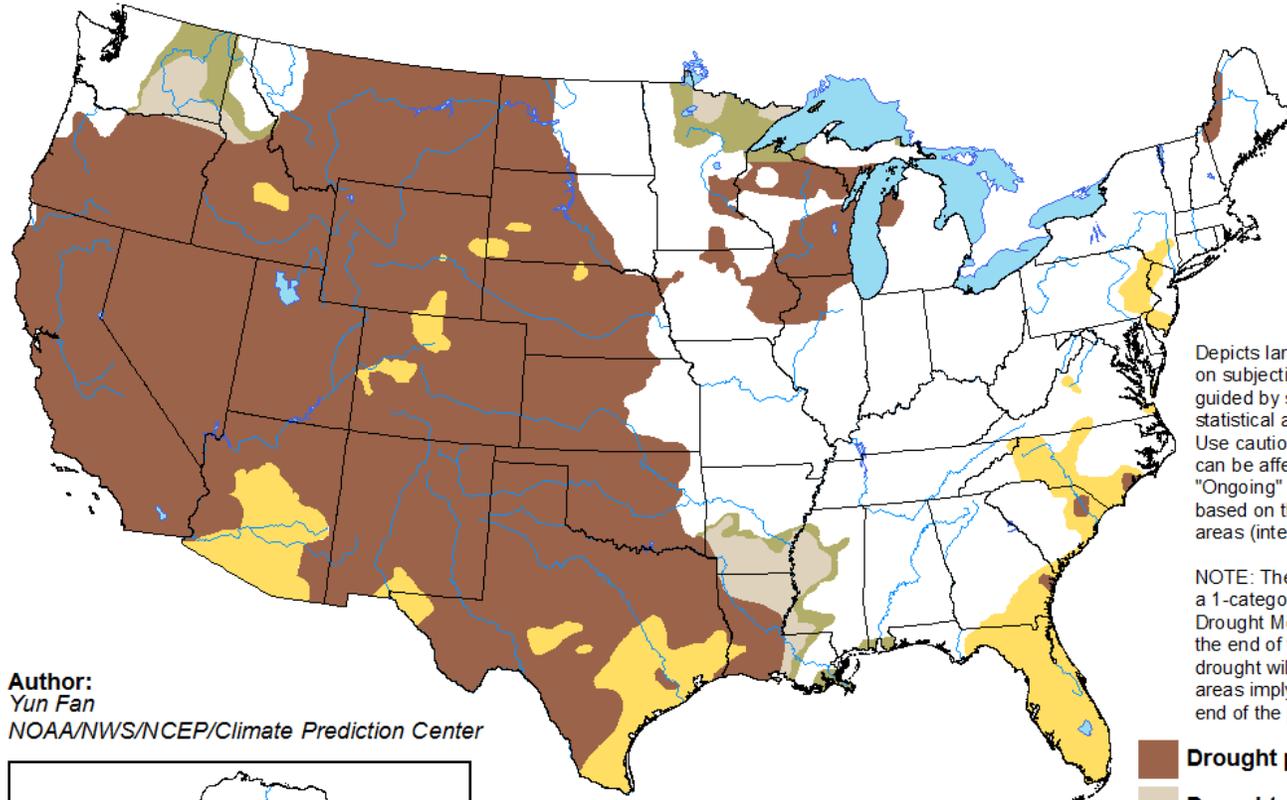




U.S. Drought Outlook

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for February 17 - May 31, 2022
Released February 17

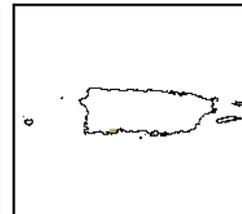
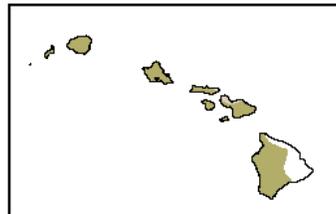
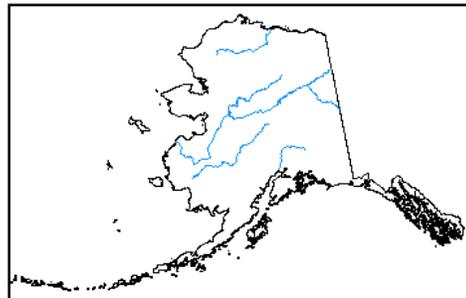


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Yun Fan
NOAA/NWS/NCEP/Climate Prediction Center

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZ73>



For More Information



TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Centers for Environmental Information: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- Dates for upcoming reports: <http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases>

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

U.S. Drought Monitor: www.drought.gov

Climate Portal: www.climate.gov

Northeast Regional Climate Center: <https://www.nrcc.cornell.edu/>

NOAA Media Contacts: john.jones-bateman@noaa.gov, 202-424-0929 (NOAA/NESDIS PAO)